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AUTHOR Downing, Diane E.; And Others
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ABSTRACT

Partial findings of a large scale, year-long project to study the relationships among (1) teachers' self-reported instructional practices, (2) observed teacher instructional practices, (3) student evaluations of teacher effectiveness, and (4) student academic outcomes or year-end "amount of learning" in seventh and eighth grade English and mathematics classes are reported in this paper. The scope of the findings presented is limited to what teachers say they do in the classroom and to the most significant positive and negative relationships between the teachers instructional self-reports and their students' "amount of learning." Out-of-class data sources and posttests are described and results are analyzed with the assumption that teacher attitudes, opinions, and self-images are directly and indirectly related to their teaching behavior. A selection of teachers' beliefs and practices is listed and utilization of the findings in the junior high classroom is discussed. The report concludes with references to styles of discipline, evaluation criteria, and attributes of an effective English teacher. (AEA)

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From Teacher to Teacher: Relationships between Junior High English Teachers' Instructional Self-Reports and Student "Amount of Learning"

(The Texas Junior High School Study)

Diane E. Downing, Ph.D.
Carolyn M. Evertson, Ph.D.
Linda M. Anderson, Ph.D.

The Correlates of Effective Teaching Program
The Research and Development Center for Teacher Education
The University of Texas at Austin

and

Jere E. Brophy, Ph.D.

Michigan State University

Principal Author: Diane E. Downing, Ph.D.
R&D Center for Teacher Education
Education Annex 2.236
The University of Texas at Austin
Austin, Texas 78712

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1. Purpose and Background of the Texas Junior High School Study

1.1. Dual Perspective of the COET Program

The Correlates of Effective Teaching Program (COET) at the University of Texas R&D Center for Teacher Education has conducted its major research projects with two audiences in mind: the classroom teacher as well as the educational researcher. The Texas Junior High School Study contains information from junior high English classrooms describing some broad patterns of effective instruction which may be of use to other classrooms (thus the phrase "from teacher to teacher"). Many of these research-based findings will seem commonsense to experienced teachers, but perhaps other results will provide some new ways of thinking about effective English teaching and teacher training for English instructors at the junior high level.

1.2. Rationale behind the Study

The Texas Junior High School Study is a large-scale observational project which investigates the relationships among (1) teachers' self-reported instructional practices, (2) observed teacher instructional practices, (3) student evaluations of teacher effectiveness, and (4) student academic outcome or year-end "amount of learning" in seventh and eighth grade English and mathematics classes. The information, both within the classroom and outside the classroom, was collected in a large metropolitan Texas school district during the school year 1974-75. Because of the scope, size, and complexity of this

comprehensive study, intensive data analysis and interpretation is still being carried out.

The overall objective of the research project was described by Dr. Carolyn M. Evertson, Director of the COET Program, in 1977: the Texas Junior High School Study is "an hypothesis-generating one which allows for the consideration of a wide variety of contextual and situational variables in tailoring prescriptive advice to teachers and educators" (Evertson, 1977). Because the data describes certain broad patterns of relationships between effective English (and mathematics) teaching as demonstrated by student academic outcome, analysis and interpretation of the data can in turn prescribe or suggest that other teachers may find similar instructional practices effective in their own teaching. It must be emphasized, however, that these are broad patterns of classroom relationships, not isolated techniques, and that the patterns vary according to the relative general ability of the students and also according to different parts of the English curriculum. The guiding COET philosophy in interpreting such a study as this has been described in the following way:

> We do not believe that there are many, if any, generic teaching processes. . . . Instead, we view [varying teaching practices] as not only unavoidable but appropriate or ideal: teachers should teach differently in different contexts, and effective teachers will do so regularly and predictably. (Brophy, 1977)

1.3. Background of the Study

Sixty-eight teachers (39 in English and 29 in mathematics) in grades 7 and 8 participated in the Texas Junior High School Study. All teachers had completed at least one year of previous teaching experience in their subject matter, and each taught two parallel class sections during the year of observation. Thus, a total of 136 different classrooms (78 English and 58 mathematics) were observed from fall 1974 through spring 1975. The students in the

136 classrooms (slightly over 2000) represented a sizeable proportion of the school district's seventh and eighth graders and showed a wide diversity in economic-educational background and aptitude level.

A variety of means was used to collect data for the study. There were two major sources of information about English (and mathematics) teachers outside the classroom: each teacher participated in a Teacher Interview and then filled out a Teacher Questionnaire, both of which questioned them about their attitudes toward teaching English in differing contexts and about their instructional intentions and practices. Trained observers collected information in the classroom using detailed coding sheets and other materials for measuring and describing the teachers' actual instructional practices.

A unique feature of this study was that the students were assessed according to two levels of "entering ability," an approximate indicator of general ability level. During the spring before classroom observations took place, the students, then in grades 6 and 7, took the relevant English (or mathematics) subtest of the California Achievement Test (CAT). After the 78 English class sections were formed in the fall, the individual students' scores were averaged to obtain a mean "entering ability" level for each class. "High" class mean entering ability levels ranged from near-grade-level to well above-grade-level scores on the CAT; the "lows" ranged from slightly below to well below-grade-level scores.

In May 1975 each class section was given a specially designed partial-content achievement test covering spelling, grammar, and word usage (or mathematical computation). The individual students' scores were again averaged to obtain a class mean "exiting ability" level. Year-end "amount of learning" was defined in the data analysis procedure to be academic achievement over or

below that which was predicted from the previous CAT performance of the class as a whole.

The class mean scores from the exiting achievement test (ACH or "posttest"), adjusted by the class mean entering scores (CAT or "pretest"), were used as the measure of student "amount of learning." Complex data analysis procedures were then used to determine the relative effectiveness of specific teacher instructional beliefs and self-reported practices (the out-of-class variables), along with specific observed instructional practices (the in-class variables), in terms of the students' "amount of learning" as demonstrated by their year-end test scores. Additional information on the whole study, along with complete descriptions of the statistical data analysis procedures, will be found in the full "Presage-Product Findings of the Texas Junior High School Study in Mathematics and English Teaching" listed in the Reference Section of this paper.

1.4. Scope of the Partial Findings Reported in this Paper

The full study investigates the relationships among (1) both out-of-class self-reported instructional practices and in-class observed practices and (2) both student academic ("cognitive") and student para-academic ("affective") outcomes. The present report, however, is limited to what the English (and mathematics) teachers said they do in the classroom and will not discuss what observers and students actually saw them do in the classroom. Only the most significant positive and negative relationships between the teachers' instructional self-reports and their students' "amount of learning" will be presented here, but both this report and the more detailed technical report mentioned above discuss the results in terms of two distinct patterns:

(1) teacher beliefs, intentions, and self-reported instructional practices

which are related consistently (either positively or negatively) to student "amount of learning" in English for all levels of student entering ability; and

(2) those which are related differentially (positively for "highs" and negatively for "lows," or vice versa) in English.

2. Description of Out-of-Class Sources of Data and the Posttest

2.1. The Teacher Interview

In May 1975 a trained interviewer conducted a one-hour structured interview with each participating teacher. The teachers answered 88 questions covering such categories as their beliefs about grouping students by ability level and about classroom management or "crowd control," their use of motivational incentives and whole-class versus smaller-group instruction, and specific questions about the English curriculum. Since there were 483 different possible "response options" to the 88 questions, the Teacher Interview provided 483 separate pieces of information, or "variables," to be compared with the year-end measure of student "amount of learning."

2.2. The Teacher Questionnaire

After the teachers completed the Interview, they were given a 15-question paper-and-pencil Questionnaire to fill out and mail in at their convenience. The Questionnaire, containing several types of question formats such as percentage estimates and checklists, consisted of the following categories: beliefs about good teaching and motivational techniques, an educational opinion inventory, and biographical information. Since there were 117 different possible "response options" to the 15 questions, the Teacher Questionnaire provided 117 separate variables to be analyzed for relationships with teaching effectiveness as measured by student "amount of learning."

2.3. The Year-End Partial-Content Achievement Test

As has been mentioned previously, student "entering ability" for each of the 78 English classes was measured by the California Achievement Test as a "pretest." Student "exiting ability" was measured by a specially-designed partial-content achievement test as a "posttest" or "cognitive criterion" of "amount of learning." The students were given a seven-minute oral spelling test and a thirty-minute test on grammar (including sentence recognition and agreement), punctuation, and word usage. It was determined that a partial-content test of this type was a sufficient complement to the previously-administered English CAT subtest. Because the latter part of the test was made intentionally difficult, students were not expected to complete it but simply to give as many correct answers as possible. (It might be noted in passing that just before the students took this "posttest," they completed a rating form in which they were asked to evaluate their English teachers' instructional effectiveness, thus providing the para-academic outcome measure or "affective criterion" of the full junior high study.)

3. Results of the Out-of-Classroom Data Analysis

3.1. General Significance of "Presage" Teacher Information

Most of the research-based findings from the Texas Junior High School Study (see Reference Section) have been derived from systematic observation of ongoing classroom instructional activities (the "process" variables of day-to-day teaching and learning). The full study largely investigates the relationships among this "process" information about teachers' practices with specific outcome "products" in terms of the year-end measure of "amount of learning" and, to a lesser extent, of the year-end measure of each teacher's instructional

effectiveness by his or her students. The study as a whole can be classified as "process-product" research.

"Presage" or out-of-classroom information is derived from what teachers say they do, not what others see them do in the classroom, as previously mentioned. These teacher presage variables (literally, information which "foreshadows" or even sometimes "predicts" actual teaching behavior) have been generically defined by Dunkin and Biddle (1974) as "teacher formative experiences, teacher-training experiences, and teacher properties," or, "the characteristics of teachers that may be examined for their effects on the teaching process" (p. 39). The Texas Junior High School Study in a sense goes beyond the relatively vague term "characteristics" through its comprehensive Interview and Questionnaire by closely questioning teachers about their instructional intentions, classroom behavior, and self-images as English teachers.

What teachers say they do in the classroom may or may not reflect what they actually do in the classroom, it is true. But their attitudes, opinions, and, most important, self-images as teachers, are both directly and indirectly related to their teaching behavior. From a practical point of view, administrators, teacher educators, teachers themselves, and the general public are greatly influenced in their institutional and personal decision-making by the beliefs, professional affiliations, and intended instructional practices of classroom teachers, especially those who teach such basic skills as general interpersonal communication in all forms, both oral and written.

From a theoretical point of view, the kind of "presage" or out-of-class information about effective English teachers found in a study such as this indicates some important and even unanticipated links between what teachers say and what they do. A study of this kind investigates (1) how teachers'

beliefs and instructional self-images shape their teaching behavior and (2) how their actual teaching behavior in turn shapes and is shaped by learning behavior.

Finally, the Texas Junior High School Study, because it does measure both out-of-class teacher-reported instructional behavior and in-class observer-reported instructional behavior against two criteria of teaching effectiveness, indicates a broad patterning of effective English (and mathematics) teaching at this level of schooling. In other words, there appear to be some broad, general linkages between what a junior high English teacher says about his or her teaching practices during a carefully structured interview and questionnaire, what someone else sees the teacher doing, and how well the students will perform on a test after a year in his or her classroom.

3.2. Presentation of Results in this Paper

Full descriptions of the complex series of data analyses, together with significance levels and graphic representations, are presented in the full "Presage-Product Findings of the Texas Junior High School Study in Mathematics and English Teaching." All significant variables for both subject matters and both levels of student entering ability are listed there in tabular form.

The Teacher Interview contains 483 separate variables, and the Teacher Questionnaire 117 variables. Since each of the 600 "presage" pieces of information were analyzed separately for 78 English classes and for 53 mathematics classes, there were 1200 analyses of relationship between self-reported teacher data and student "amount of learning." The present paper will highlight in words and not in numbers only the most significant positive and negative relationships between "presage" and student academic "product."

3.3 Consistent Positive and Negative Relationships between English Teachers' Instructional Self-Reports and Student "Amount of Learning" for Both

Levels of Student "Entering Ability" (Pattern 1)

The following simplified table indicates a selection of some of the important teacher beliefs, intentions, and self-reported instructional practices which data analysis indicated to be related either to a relatively greater "amount of learning" (a positive relationship) or to a relatively lesser "amount of student learning" (a negative relationship) during the students' year in either a seventh or eighth grade English class. (The variable number is included for comparative reference to the full technical report on presage data; the digits "06" refer to information from the Teacher Questionnaire, while the digits "07" identify information from the Teacher Interview.)

SELF-REPORT INFORMATION RELATED TO GREATER "AMOUNT OF LEARNING"

06006 Teacher says that a greater percentage of disciplinary problems are due to factors intrinsic in students, rather than to disinterest in subject matter or laxity in enforcing rules.

06008 Teacher says that a greater percentage of class time should be spent in asking questions and discussions, rather than in lectures, demonstrations, and seatwork.

06015 Teacher says that regular homework is assigned daily or almost daily, rather than less than once a week, or once or twice weekly.

07028 Teacher says that he or she gives both self-made and prepared tests to assess students frequently.

07057 Teacher gives extra credit projects and assignments to students who need remedial work or enrichment. (Compare #07058.)

07096 Teacher distinguishes between excused and unexcused papers in accepting late homework. (Compare #07241.)

07118 Teacher organizes classroom control at the beginning of the year by announcing rules and the consequences of breaking them, rather than by posting rules, involving student input in establishing and enforcing rules, or by "rap sessions" with students.

07205 Teacher handles students who do not understand directions or do not take the time to read them carefully by warning them or penalizing them in class rather than by giving oral directions or using a "softer" private approach.

07241 Teacher considers disregard for school work (tardiness, cutting class, cheating, unpreparedness) as a severe misbehavior requiring discipline, rather than classroom disruption, profanity, or lack of respect for others in the classroom. (Compare #07237.)

07416 Teacher considers punctuation and capitalization to be appropriate criteria for student composition in terms of mechanics rather than spelling, grammar, sentence structure, or other criteria. (Compare #07419.)

07444 Teacher believes that differences in his or her two parallel class sections are attributable to differences in "class personality" and interpersonal relationships, rather than to differences in ability level, background, behavior, or maturity.

07472 Teacher feels that energy and health are important teacher attributes in order to do an effective job rather than such qualities as patience, humor, consistency, good communication skills, knowledge of the subject matter, or good "teaching skills." (Compare #07481.)

SELF-REPORT INFORMATION RELATED TO LESSER "AMOUNT OF LEARNING"

06052 Teacher believes that the ability to do remedial work with slow learners is a significant trait of good teaching. (Other "response options" which did not indicate any significant relationships included the ability to explain, to organize the classroom, to develop warm personal relationships, or to project "warmth." (Compare #07481.)

06063 Teacher uses special privileges as a motivational technique rather than praise, written comments to students and to parents, or public recognition. (Compare #07214.)

06078 Teacher believes that students learn much from peer interaction and that he or she should therefore provide opportunities for small group discussions. (Other "response options" which did not indicate any significant relationships included "Teachers should teach subjects rather than attitudes" and "It is natural and healthy for a student to resist his teacher.") (Compare #06014, 07042.)

07016 Teacher says he or she targets classroom attention to special subgroups rather than give equal attention to all groups ("high" and "low" ability groups, troublemakers, or attention-seekers). (Compare #06014.)

07214 Teacher rewards good behavior or good work by giving such out-of-class privileges as field trips, running errands, library permission, or assemblies. (Compare #06063.)

07237 Teacher considers profanity (swearing, vulgar language) a severe misbehavior requiring discipline. (Compare #07241.)

07379 Teacher says he or she uses the technique of going over meanings and writing definitions to teach spelling. (Techniques which showed no significant relationships included dividing words into syllables, using words in context, spelling bees, or flash cards.)

07382 Teacher says he or she uses the techniques of drill, written exercises, and homework to teach spelling. (See #07379 for other non-significant possible "response options.")

07433 Teacher says he or she uses non-written language for communicating subject matter in the form of acting, role playing or pantomime, rather than oral reports, reading aloud, bulletin board artwork, or other non-written communication techniques.

07481 Teacher feels that good "teaching skills" (ability to explain and present, good preparation, dramatic flair) are the most important attributes of a teacher in order to do an effective job. (Compare #07472.)

3.4 Differential Relationships between English Teachers' Instructional Self-Reports and Student "Amount of Learning" for "High" and "Low" Student "Entering Ability" (Pattern 2)

The following simplified table indicates a selection of some of the important teacher beliefs, intentional, and self-reported instructional practices which data analysis indicated to be related either to a relatively greater "amount of learning" (a positive relationship) for "highs" and a relatively non-significant or lesser "amount of learning" for "lows," or vice versa.

SELF-REPORT INFORMATION RELATED TO GREATER "AMOUNT OF LEARNING" FOR "HIGH" CLASS MEAN "ENTERING ABILITY" LEVEL AND LESSER "AMOUNT OF LEARNING" FOR "LOWS"

06013 Teacher says he or she spends a greater percentage of time teaching subgroups rather than individuals or the whole class. (Compare #06014, #07016.)

06089 Teacher believes that "One should expect students to forget much that is told them."

07066 Teacher tries to prevent confusion when presenting new or difficult material by relating it to previous material and building from there. (Other "response options" which showed no significant relationships included using concrete examples, being repetitive, using a novel approach, and giving a written list of instructions.) (Compare #07070.)

07070 Teacher tries to prevent confusion when presenting new or difficult material by checking comprehension with exercises or board work. (Compare #07066.)

07093 Teacher considers mutual courtesy and respect for others' rights to be established and appropriate classroom behavior. (Compare #07096, #07241, #07237.)

07097 Teacher says he or she penalizes grades from late homework by giving a zero or deducting points. (Compare #07096.)

07174 Teacher says he or she deals with students who are not paying attention (especially if they are nondisruptive or tired and upset by leaving them alone.

07402 Teacher says that the advantage of peer tutoring is that it has affective advantages for the tutee (in terms of feeling more comfortable about making mistakes and experiencing less pressure), rather than that peer tutoring maximizes teacher time or provides academic advantages for the tutee. (Compare #06014, #06078.)

07419 Teacher considers complete sentences and sentence structure to be appropriate criteria for student composition in terms of mechanics rather than spelling, grammar, or other criteria. (Compare #07416.)

07464 Teacher believes that severely disruptive behavior problems and antagonistic students are among classroom factors which teachers really cannot do much about, rather than other factors such as lack of parental encouragement, learning disabilities, or lack of motivation.

SELF-REPORT INFORMATION RELATED TO LESSER "AMOUNT OF LEARNING" FOR "HIGH" CLASS MEAN "ENTERING ABILITY" LEVEL AND GREATER "AMOUNT OF LEARNING" FOR "LOWS"

06014 Teacher says that a greater percentage of his or her teaching time is devoted to the whole class, rather than to individuals or subgroups. (Compare #06013, #07016.)

06096 Teacher believes that "The personality of the teacher is the most important of his or her pedagogical qualifications." (Compare #07476.)

06111 Teacher has had a greater number of total years teaching experience at the junior high level relative to other teachers participating in the study.

06114 Teacher belongs to the NEA.

06115 Teacher belongs to the AFT.

07058 Teacher refers students who need remedial work or enrichment to resource teacher or gives special help. (Compare #07057.)

07090 Teacher allows quiet, nondisruptive talking during seatwork but no excessive noise or distracting disruptions as established and appropriate classroom behavior. (Compare #07093, #07241.)

07154 Teacher deals with students who never volunteer by calling on them and using some kind of predetermined order to make sure that all students have an opportunity to answer.

07178 Teacher believes that alienated or unmotivated students suffer from poor self-concepts, lack of confidence, and fear of failure, rather than cultural alienation, lack of ability, or antisocial feelings.

07180 Teacher believes that alienated or unmotivated students suffer from inappropriate and irrelevant materials in school. (Compare #07178.)

07330 Teacher believes that one of the greatest disadvantages to busing is that bused students cannot stay after school for extracurricular activities, and that their parents in turn cannot easily become involved in school activities, rather than that busing causes frustration, destroys neighborhood schooling, or tires the children.

07394 Teacher uses peer and university student tutoring or a "buddy system" as a technique for students who cannot read well at all or cannot read at their grade level, rather than using special materials, one-to-one teacher help, or other techniques. (Compare #07402.)

07476 Teacher feels that involvement, understanding of individual differences at this age level, and caring are important teacher attributes in order to do an effective job. (Compare #07472, #07481).

4. Discussion of Findings for Junior High School English Teaching

4.1. Practice into Theory into Practice

If we can assume that we can define a coherent theory of effective teaching, then we can assume that a research project like the Texas Junior High School Study can assist in the process of describing, explaining, and then prescribing those teacher intentions and instructional beliefs which are regularly and predictably related to student "amount of learning" in different contexts. Such a study can first assist the process of translating practice (presage and process information) into theory in its "hypothesis-generating" function (Evertson, 1977). Second, it can re-translate substantiated hypotheses into specific advice to the individual teacher in the real world. In other words, such a project is capable of providing useful information "from teacher to teacher."

4.2. The Junior High Level of Schooling

In the lower elementary grade levels the teacher generally has two major tasks. First, the teacher must shape children's learning behavior, or teach them how to "learn how to learn." Second, the teacher must instruct children in the basic tool skills of numerical and verbal literacy. The elementary teacher traditionally has given students a great deal of individual seatwork, has divided the whole class into smaller subgroups, and has provided "direct instruction" (Rosenshine, 1976) in reading and arithmetic.

When children reach the seventh and eighth grades, however, the classroom teacher generally assumes that pupils have adjusted to a predictable student role, have mastered a solid foundation in numerical and verbal literacy, understand the basic operating rules of the classroom, and have "learned how to learn." Such classrooms typically correspond roughly to the "highs" described in this study. That is, the mean class score of entering ability in English (or mathematics) indicates both satisfactory adjustment to "schooling" and near or above-

grade-level competencies.

However, there are other classrooms which tend (due to school "tracking" procedures) to be made up of students who are grouped together because they are in some way educationally disadvantaged. Such classes correspond, again roughly, to the "lows" described in this study. The mean class entering ability level, which is near or radically below-grade-level competencies, indicates a deficiency in "learning how to learn" or incomplete mastery of the basic tool skills, or, more likely, both.

Common sense and experience have taught the effective teacher to vary certain broad instructional patterns according to different parts of the curriculum and to different types of students. Some of the findings in this study point out such clearly differentiated teaching patterns for "highs" and "lows," especially in the areas of classroom management, "direct instruction" for basic skills, and the teacher's projected personal image as instructional leader.

4.3. The Purpose of the Junior High School English Class

The overall objective of the junior high level English class might be described in the following terms: to expand the students' skills in all types of interpersonal communication, both written and oral, in one or more standard forms of English. The "feel" of a typically effective English class is quite distinct from that of a typically effective mathematics class. Edgar (1977), in characterizing the mathematics classes observed in the Texas Junior High School Study, calls them more "businesslike." The junior high mathematics teacher has as his or her primary goals the continuation of instruction in general mathematical skills with emphasis on problem-solving for both "terminal" and college-bound students.

The junior high English teacher, on the other hand, typically conducts a less "businesslike" and more personal classroom which is both appropriate for the curriculum (the six-unit curriculum in grades 7 and 8 in this study consisted

of grammar, careers, mythology, the novel, the short story, and folklore) and the subject matter. This curriculum is totally unlike the sequential, developmental mathematics curriculum and, except for the "rules" and logic of approaches to interpersonal communication, does not directly emphasize problem-solving. The English teacher, then, would seem to pursue goals which involve "affective" and "cognitive" skills equally.

The behavioral data from this study appears to support such a distinction between typically effective English and mathematics classes and also between effective teaching for "high" and "low" ability level students. Perhaps surprisingly, the out-of-class teacher information as well indicates similar broad instructional patterns for effective teaching. If effective teachers do what they say they do in the classroom, then certain broad results are reflected in their students' performances.

4.4. Some Previously Reported In-Class English Teacher Instructional Practices

A comparison between the instructional behavior of mathematics and English teachers who were "effective" in terms of this study (i.e., specific observed practices appeared to coexist with a relatively higher "amount of learning" for their students) would be helpful in describing and explaining some of the out-of-class teacher information listed in the Results Section of this paper.

Edgar's report (1977) seems to support a distinction between a typically effective "businesslike" mathematics class and a typically effective English class characterized as more loosely structured and oriented more towards "warmer" interpersonal communication. In terms of broad instructional patterns, the mathematics teachers asked a very high proportion of process or "why" questions requiring extended, reasoned student responses to objective data. English teachers, on the other hand, were observed to ask significantly more subjective and opinion-evoking questions, as would be appropriate for the subject matter. Mathematics teachers, in terms of instructional mode, were recorded as spending

a higher percentage of time instructing the whole class at the blackboard and in general lecture, as opposed to the relatively "unstructured" whole-class discussions and personalized, individual projects characterizing English instruction. The English teachers used an entirely different instructional approach in order to relate literature and general communication to the students' own interests and life skills.

In contacts between teacher and students, mathematics teachers were observed to be more directly task-related than English teachers, who engaged in more personal and "indirectly" task-related contacts with their students. Again, such a distinction is commonsense given the nature and goals of the two contrasting subject matters. Subject matter differences were readily apparent even in the observed data regarding general classroom management or "crowd control." Perhaps because of the necessary "businesslike" approach typical of effective mathematics instruction, teachers were seen to encounter fewer problems with student misbehavior but to react more severely when misbehavior did occur. Effective English teachers, of necessity conducting a more "personal" classroom, encountered milder but more frequent misbehavior, and they reacted with milder criticism and used more extensive non-verbal negative reinforcement.

Edgar's discussion of these teacher in-class practices concludes with the question of whether the subject matter determines an effective teacher's differential instructional style, or whether the teacher's personal style might determine the choice of subject matter specialization in the first place. This question of course bears directly on the relationship (and the stability of that relationship) between the in-class and out-of-class teacher variables in any hypothesis about patterns of effective differential teaching.

In the Texas Junior High School Study there are some very clear-cut parallels between what effective English (and mathematics) teachers say they do and what they were observed to do in the classroom. The "presage" or out-of-class

teacher information presented here tends, on the whole, to support the hypotheses of effective differential teaching reported both in previous and forthcoming reports on the full study.

4.5. Interpretation of the Selected Out-of-Class Teacher Information Presented in this Paper

The typically effective junior high school English class has been characterized here as being a relatively "personal" classroom with some emphasis on the mechanical rules and problem-solving logic of communication, but with predominant emphasis on student self-expression in terms of both general interpersonal communication, both written and oral, and of literature as related to their minds and their lives. As far as broad instructional patterns are concerned, it seems then appropriate that effective English teachers said they spend a greater percentage of class time in asking questions and in discussions, rather than in lectures (#06008) for students of both ability levels. Effective teachers also teach the entire group of students and do not target their classroom attention to special subgroups of "high" and "low" ability levels or attention-seekers (#07016). However, the differential analysis of effective teaching for "highs" and "lows" indicates that English teachers who spend a greater percentage of time teaching subgroups rather than individuals or the whole class produce a relatively greater "amount of learning" for their "high" ability students and a relatively lesser "amount of learning" for their "low" ability students (#06013, 06014). Such differential instructional patterns make sense if we can assume that educationally-disadvantaged students generally still need to "learn how to learn" and to expand their basic verbal skills, in which case the whole-class instructional format is not only appropriate but necessary.

Another major area of results consists of information about classroom management or "crowd control." Effective English teachers said that for all types of

students they in effect established themselves as instructional and classroom leaders in the beginning of the year. The teachers announced rules and the consequences of breaking them, rather than by an indirect means such as posting a list or "rapping" with students (#07118). This pattern of instructional leadership can be seen in other presage-outcome relationships as well: effective teachers are uniformly rigorous about work and study habits, giving frequent homework (#06015), using tests for frequent assessment (#07028), distinguishing predictably between excused and unexcused papers (#07096), taking a predictable "hard line" with students who will not read written directions (#07205), and in general demanding complete student attention to the work they are supposed to do in the English class. However, differential analysis indicates that effective English teachers also penalize grades for late homework for "high" ability students (#07097), but that they tend not to penalize periodic lateness on the part of their "low" ability students, understanding that such factors as poor self-concepts (#08178), irrelevant school material (#07180), busing (#07330), and general problems in knowing "how to learn" will affect the students' performance.

An interesting picture emerges from the out-of-class data regarding classroom management in terms of acceptable student behavior. All the effective English teachers considered disregard for schoolwork (tardiness, cutting class, cheating, unpreparedness) as a student behavior severe enough to require discipline (#07241). This teacher attitude conforms to the previous information supporting the teacher's self-projected image as instructional classroom leader. However, only effective teachers of high ability students expected mutual courtesy and respect for others' rights to be established and appropriate classroom behavior for their students (#07093); presumably such students have "learned how to learn" and are relaxed and comfortable in a classroom. Effective teachers do not consider profanity (swearing, vulgar language) as punishable misbehavior, at

least if not severely disruptive to the class, for any ability level student. Presumably the effective and "personal" English teacher understands the reasons behind temporary or chronic student alienation. Furthermore, since the overall classroom goal is to motivate the students to express themselves in one or more forms of standard English, then even vulgar language has its obvious place in general communication. Teachers know that for hostile "high" ability students and withdrawn "low" ability students, it may be a significant form of expression.

In terms of instructional mode and teacher-student contacts, the out-of-class teacher information is also helpful to other English teachers and teacher educators. Effective teachers said that they gave extra-credit projects and assignments to students needing remedial work (#07057) for both ability levels, but interestingly enough they did not believe that the ability to do remedial work with slow learners is a significant trait of good teaching (#06052). Furthermore, only relatively ineffective teachers ever used special privileges (other than more usual forms of motivation such as praise, written comments to students and parents, or public recognition) as a motivational technique for either ability level (#06063). Rewarding good behavior or good work by allowing out-of-class privileges like field trips, library permission, or the "privilege" of running errands (#07214) indicated a relatively lesser, rather than greater, "amount of learning" for all students in English. Effective teachers also do not believe that students learn much from peer interaction (#06078), but differential analysis indicates that there are some circumstances in which both the "highs" (who would be interacting with peers who already know "how to learn") and the "lows" (who would be interacting with peers in a "buddy system" for basic skills) could benefit from student-student tutoring situations (#07402, 0739-).

Another set of global information from the teacher self-report data concerns specific subject matter questions. It is interesting to note that all effective

English teachers considered punctuation and capitalization to be appropriate criteria for student compositions in terms of mechanics rather than spelling, grammar, sentence structure, or other criteria (#07419). Only for "high" ability students did the teachers also consider complete sentences to be appropriate criteria as well, presumably because of the fundamental communication skills already mastered by such pupils. It might be noted that the Junior High School Study does not resolve the perennial problem of teaching spelling: effective teachers said that going over meanings (#07379) and using drill, exercises, or homework (#07382) were relatively ineffectual. Perhaps English teachers now have a case for either resorting to Basic English or requesting a genuinely phonetic English spelling system.

Finally, the instructional self-portraits which have emerged from the out-of-class teacher information found in the Texas Junior High School Study are quite interesting. The effective English teacher emerges as a person who establishes himself or herself early in the year as the primary instructional leader in the classroom, responsible for "crowd control" and certain pre-defined standards of work-related and general classroom behavior on the part of all students. However, the effective teacher also appears to recognize that a greater percentage of disciplinary problems are due to factors intrinsic in the students, rather than to disinterest in the subject matter or laxity in enforcing rules (#06006). The effective English teacher is himself or herself an empathetic communicator, believing that differences in the two parallel class sections or between any two classes are due to differences in "class personality" and interpersonal relations, rather than to differences in ability level, background, maturity, or behavior (#07444). These teachers seem to feel that the traditional measures of good "teaching skills" (ability to explain and present, good preparation, dramatic flair even) are NOT among the more important attributes of an effective teacher (#07481).

Moreover, these effective teachers do teach in different ways for different students in regular and predictable ways. They try to prevent confusion when presenting new or difficult material by relating it to previous material for "high" ability students only (#07066) and check student comprehension with exercises or board work (#07070). The effective teacher of "low" ability students, on the other hand, does not presume either "knowing how to learn" or mastery of basic skills in educationally-disadvantaged students and gives help or refers students to special resource teachers (#07058). In addition, he or she tries to give such students as much "opportunity to learn" in the classroom by calling on nonvolunteers in some kind of predetermined order (#07154) as possible. Teaching basic skills seems to require both "direct instruction" (Rosenshine, 1977) and active student participation in the learning process.

Some special mention should be made of the effective teachers of "low" ability English students. In a global fashion, the out-of-class teacher information from this study indicates an effective teacher as one who exhibits what one educational researcher has called "warm demandingness" (Kleinfeld, 1975). Teachers of both ability levels gave information in the Teacher Interview and the Teacher Questionnaire which indicates that they see themselves as "warm" and academically "demanding" towards their students, and that they habitually project themselves as "warm" and "demanding" through their instructional behavior. But effective teachers of "low" ability students, as opposed to those teaching "highs," did NOT believe that severely disruptive behavior problems and antagonistic students were among classroom factors that teachers can do nothing about (#07464). These effective teachers believed that "The personality of the teacher is the most important of his or her pedagogical qualifications" (#06096) and also felt, unlike effective teachers with "highs," that involvement, understanding of individual differences at this age level, and caring are necessary attributes for teacher effectiveness (#07476).

The empathy and "warmth" indicated by these attitudes and beliefs, however, is tempered by "demandingness" for academic standards fostered by years of classroom experience. These effective teachers all had had a relatively greater number of total years teaching experience at the junior high level relative to other teachers participating in the study (#06111). They also indicated their professionalism by belonging both to the NEA and the AFT (the latter, of course, may also indicate another form of out-of-class "demandingness"). A very interesting differential analysis reveals that effective teachers of higher ability students believed that "One should expect students to forget much that is told them" (#06089). The teachers of the educationally disadvantaged, however, did NOT believe this. They also did not believe in dealing with nonattentive students who are nondisruptive, tired, or upset or leaving them alone (#07174). Their "warmth" is well-tempered with critical academic "demandingness," and vice versa.

4.6. Conclusion

The Texas Junior High School Study does present some interesting and even unanticipated linkages between what effective English teachers say they do in the classroom, what they can be observed to do in the classroom, and how well their students perform on a year-end measure of "amount of learning." Most of this information provides some clear-cut patterns of broad instructional practice which can be described (and perhaps prescribed) as elements of effective differential teaching of English at the junior high level. Certainly the study provides data about what effective English teachers consider to be among the most important teacher attributes for their profession. In the Teacher Interview the teachers did not list such qualities as patience, humor, good communication skills, knowledge of the subject matter, or good "teaching skills" as significant characteristics (#07472). They appeared to feel that the minimum competencies for effective English teaching are energy and health.

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Downing, D., Evertson, C., Anderson, L., & Brophy, J. Presage-outcome findings of the Texas Junior High School Study in mathematics and English. Austin, Texas: R&D Center for Teacher Education, in preparation.

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importance of selective, systematic, and relevant praise and criticism as indicated by the Texas Junior High School Study.

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